

Phyllanthera takeuchiana (Apocynaceae: Periplocoideae), a new species from Papua New Guinea

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Summary

Forster, Paul I. (2001). *Phyllanthera takeuchiana* (Apocynaceae, Periplocoideae), a new species from Papua New Guinea. *Austrobaileya* 6(2): 329–331. The new species *Phyllanthera takeuchiana* P.I.Forst. is described and illustrated. It is known from a single collection from Lake Lamu in the Gulf Province of Papua New Guinea. Differences between *P. takeuchiana* and *P. multinervosa* (P.I.Forst.) Venter are outlined.

Keywords: *Phyllanthera takeuchiana*; Papua New Guinea; *Phyllanthera multinervosa*; Apocynaceae; Periplocoideae; Asclepiadaceae

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Introduction

A conspectus of the Malesian taxa of *Cryptolepis* R.Br. has been provided by Forster (1993), wherein some seven species were enumerated with five occurring in New Guinea. These species were classified into two subgenera, *C.* subgenus *Cryptolepis* and *C.* subgenus *Phyllanthera* (Blume) P.I.Forst. Four of the New Guinea species and the single Australian species (*C. grayi* P.I.Forst.), have now been formally transferred into *Phyllanthera* Blume by Venter in Venter & Verhoeven (2001). Both *Phyllanthera* and *Cryptolepis* are considered worthy of generic distinction by these authors, a morphologically based decision with which I concur. A recent collection (1996) by Wayne Takeuchi of a *Phyllanthera* from Lake Lamu in the Gulf Province represents a further species in this genus and is formally described herein.

***Phyllanthera takeuchiana* P.I.Forst., sp. nov.**
affinis *Phyllantherae multinervosae* P.I.Forst., a qua lamina folii venatione tertiaria obscura (adversum obscure visibilem), corolla campanulato-rotata, lobis elliptico-ovatis 9–11 mm longis 5–6 mm latis et intus papillois, papillis brevis (< 0.3 mm longis) toti paginae praeter vittam 1 mm latum circum aciem insidentibus (adversum corollam profunde rotatam, lobis lanceolato-

falcatis 13–14 mm longis 2.5–3 mm latis, intus dense papillois, papillas longiores (ad 1 mm longis) in vitta angusta parte media gerentibus), gynostegio columnae insidenti (adversum sessile) et appendicibus antherae late flabellatis (non oblongo-acutis) differt. **Typus:** Papua New Guinea. GULF PROVINCE: Lake Lamu, east branch of the Avi Avi River, 7°44'S, 146°29'E, 26 Oct. 1996, W.Takeuchi 11451 & J.Kulang (holo: BRI. [1 sheet + spirit]; iso: LAE n.v.).

Liane, latex white. Stems cylindrical, up to several metres long, glabrous when young, lenticellate when old; internodes up to 50 mm long and 2 mm diameter, light-brown. Stipules linear-lanceolate, several at internodes, 0.8–1 mm long, c. 0.5 mm wide, dark brown. Leaves petiolate; petiole 4–6 mm long, c. 1 mm diameter, grooved along top; lamina elliptic-oblong to lanceolate-ovate, coriaceous, 50–85 mm long, 15–35 mm wide, discolorous, upper surface dark dull-green, venation obscure, lower surface pale green to glaucescent, venation prominent; secondary lateral veins 34–36 per side of midrib at c. 90 degrees, tertiary venation obscure; tip long-acuminate; base rounded. Cymes 15–40 mm long, with 1 or 2 fascicles of flowers; peduncle 5–8 mm long, c. 8 mm diameter, glabrous; bracts triangular-lanceolate, 0.7–0.8 mm long, 0.6–0.7 mm wide, glabrous. Flowers 6–10 mm

long, 12–20 mm diameter; pedicels 5–7 mm long, c. 1 mm diameter, glabrous; sepals triangular, c. 1.5 mm long and 1.5 mm wide, glabrous; corolla campanulate-rotate, tube much reduced, externally off-white with a faint red tinge, internally light red, turning cream towards the centre; lobes elliptic-ovate, 9–11 mm long, 5–6 mm wide, externally glabrous, internally papillose with very short papillae (< 0.3 mm long) over the entire surface but not for c. 1 mm around the left-hand edge when viewed from centre of flower. Gynostegium c. 3 mm long and 4 mm diameter, on a short column c. 2 mm long; filaments c. 1.5 mm long, flattened, c. 0.3 mm wide at base and 0.5 mm wide at apex; anthers c. 1.5 mm long and 1.5 mm wide, appendages broadly flabellate; style-head c. 1 mm diameter. Fruit and seed not seen. Fig. 1.

Notes: *Phyllanthera takeuchiana* appears to be most closely allied to *P. multinervosa* (P.I.Forst.) Venter that is only known from Lake Kutubu in the Southern Highlands Province of Papua New Guinea (Forster 1993).

P. takeuchiana differs from *P. multinervosa* in the obscure tertiary venation in the leaf lamina (versus visible), the campanulate-rotate corolla with elliptic-ovate lobes that are 9–11 mm long and 5–6 mm wide and internally papillose with short (< 0.3 mm long) papillae over the entire surface apart from a 1 mm band around the left-hand edge (versus

a deeply rotate corolla with lanceolate-falcate lobes that are 13–14 mm long and 2.5–3 mm wide and internally densely papillose with long (to 1 mm) papillae in a narrow band in the middle), the gynostegium on a column (versus sessile) and the anther appendages being broadly flabellate (versus oblong-acute). Using the key of Forster (1993), *P. takeuchiana* will key to *P. multinervosa*, but can be distinguished by the characters outlined above.

Distribution and habitat: *Phyllanthera takeuchiana* is only known from the type locality where it was collected from rainforest surrounding a lake at c. 100 m altitude.

Etymology: The specific epithet honours Dr. Wayne Takeuchi collector of the type specimen and who has made a number of interesting collections of Asclepiadoideae in New Guinea.

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References

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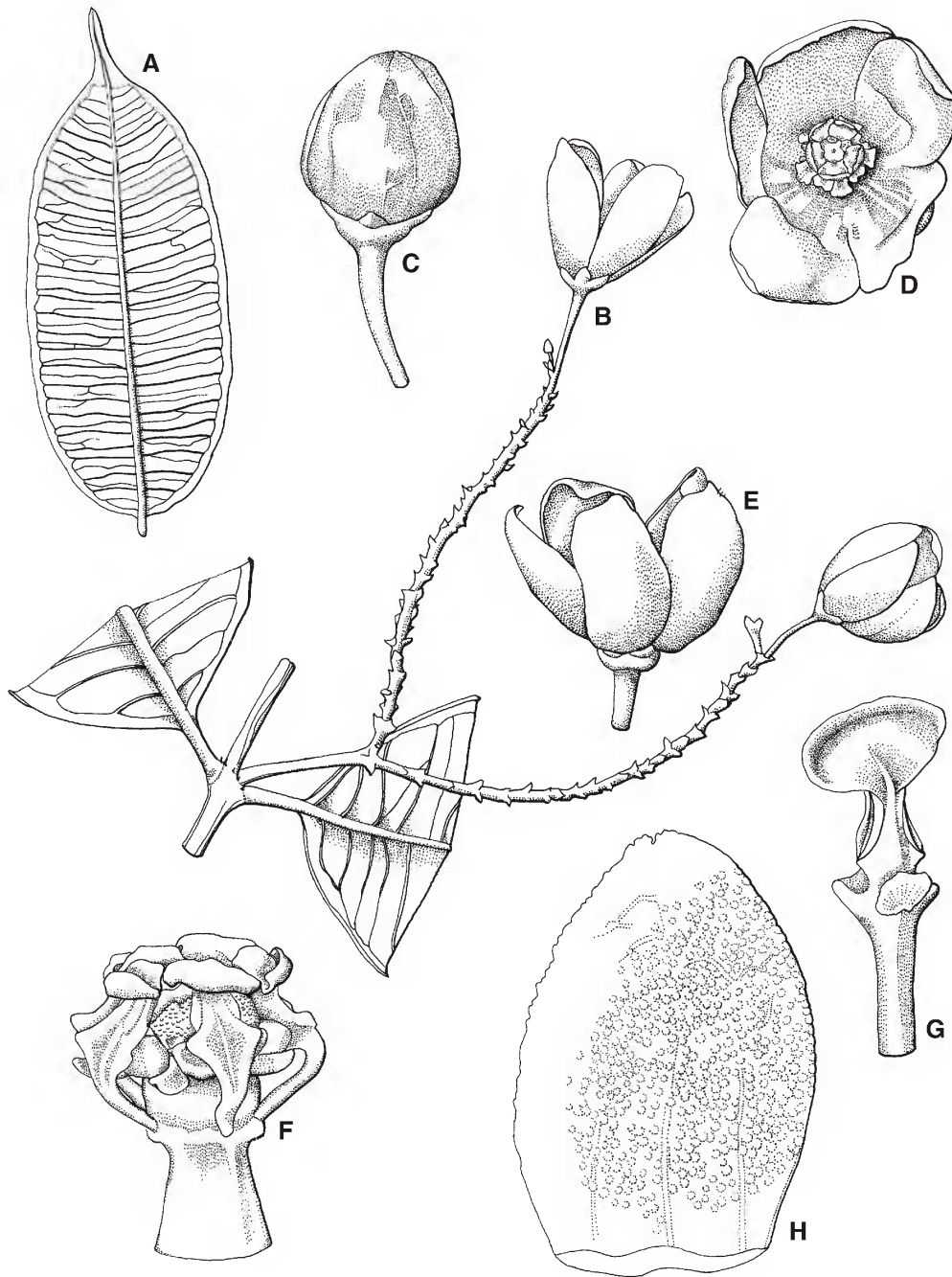


Fig. 1. *Phyllanthera takeuchiana*. A. undersurface of leaf showing venation. $\times 1$. B. flowering inflorescence. $\times 2$. C. bud. $\times 2$. D. face view of flower. $\times 3$. E. side view of flower. $\times 3$. F. staminal column (gynostegium). $\times 9$. G. rearview of anther showing flabellate head. $\times 12$. H. corolla lobe showing distribution of papillae. $\times 6$. All from *Takeuchi 11451* (BRI). Del. W. Smith.